SOFORTHE CONTEMPORARY BATTLEFIELD

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PECIAL OPERATIONS forces (SOF) and joint air power achieved spectacular results during Operation Enduring Freedom (OEF) in Afghanistan. This was especially true in the first few months when the eyes of America and the world were watching. The initiative, courage, and strength of character of American fighting men and women shined, and we are all indebted to them.

We decided to investigate the integration of air power with special operations on the ground. We did this to gain insights into the challenges U.S. Armed Forces faced in Afghanistan and how front-line commanders worked together to overcome them.

The integration of airpower with special operations has significant doctrine, organizational, and training implications. As the Joint SOF trainer, Special Operations Command Joint Forces Command (SOCJFCOM) sent SOF joint training teams (JTTs) to assist joint special operations commanders in OEF. They shared insights, practices, and knowledge of the best tactics, techniques, and procedures (TTPs) to employ SOF. While successful, SOF JTTs could have done more to improve air-ground fire integration.

Integrating air power and special operations is not new. In fact, SOF and the joint air community are adept at close integration, and the men on the ground did a great job working with air support. However, at the operational level of war, integration on a noncontiguous battlefield with large indigenous maneuver forces was a new

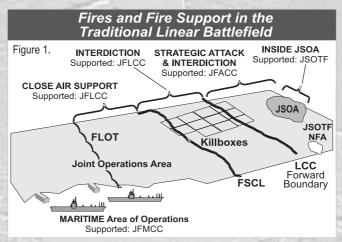
challenge to many. We saw a different paradigm from the traditional one of airpower in support of large maneuvering corps and division elements on a linear battlefield. We learned and adapted. Afterward, the operators and the writers of this article examined the challenges and solutions of fires integration in noncontiguous operations.

We have learned from OEF and hope that these insights are of assistance in future operations. We omitted detailed discussion of the SOF task organization and did not address the multiple SOF head-quarters (HQs) effect on the combined force air component commander (CFACC) coordination nor the U.S. Army Central Command's (ARCENT) role as the combined force land component commander (CFLCC).¹

In Afghanistan during OEF, U.S. forces operated in a noncontiguous battlefield and discovered numerous challenges to coordinating fire with maneuver when no traditional boundary lines demarcated areas of operation. We will discuss these challenges, how commanders overcame them, and offer insights for further improvement. These are key future challenges and offer insights to potential solutions. While these challenges and subsequent insights have a spe-

cial operations perspective, many have value to future conventional force operations on noncontiguous battlefields.

We address challenges in battlespace geometry, command relationships, air apportionment, and fire support processes for noncontiguous environments. We then share insights on the increased use of



gridded areas of operation in conjunction with overlaid killboxes, the value of ground-directed interdiction (GDI) initiatives, greater SOF leverage of joint targeting processes, continuous Blue-Force tracking, and more robust and better trained fire support organizations for SOF. Increased use of delineated areas of operation (AOs) and killbox management techniques will clarify fire support responsibilities. Increased SOF understanding and participation in the targeting process will result in better input into the apportionment process, timely target nominations, and more responsive fire support. This will enable SOF to take full advantage of the effects that joint fires can bring to the fight by better leveraging planned interdiction and strategic attack rather than primarily relying on close air support (CAS). We also support more investigation of the GDI concept in which the ground force identifies targets and directs interdiction fire. We concur with current emerging thoughts on developing an improved air support organization for special operations headquarters (much like the Air Support Operations Center [ASOC] in the corps headquarters) to better facilitate actual execution of fire support for special operations.

Many in SOF and the Air Force have focused on specific technical and tactical training-related challenges for the request and control of close air support. While these might offer some improvements, we believe that harnessing the power of existing command and control (C2) tools offers the best opportunity for integration.

Battlespace Geometry and Command Relationships

Through the first months of OEF, there was minimal establishment of any subordinate to CENTCOM joint operations areas (JOA) or ground AOs in Afghanistan. The CENTCOM commander did not initially assign the land mass of Afghanistan to the theater special operations command (SOC), a joint task force (JTF) commander, or a ground commander. None of these commands was readily capable of performing the functions of targeting, enemy situational awareness, or fire clearance in this large area. Instead, Afghanistan was retained as a CENTCOM area of responsibility. Later in the campaign, the land mass was assigned to the CFLCC and subsequently to the forward land component, the 10th Mountain Division. Even then, it could be argued that the CFLCC was not capable of performing all the functions of owning an area of operation.² Nor was the special operations component manned or trained to control such a large area. Neither organization had the C2 capability or the forces to monitor and control such a large area. It was only with the activation of CJTF-180, a joint task force formed around the XVIII Airborne Corps headquarters, that a subordinate joint command was able to monitor and control the Afghanistan AO, designated as a coalition joint operations area (CJOA).

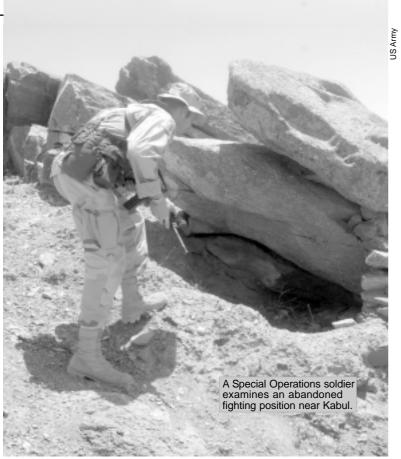
This initial absence of land boundaries, and the significant and widespread maneuvering of SOF and Northern Alliance forces (and, later, of conventional

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ground forces) in noncontiguous operations throughout Afghanistan, presented challenges in the traditional thinking of fire support in relation to maneuver. Traditionally, ground maneuver occurs in the ground commander's area of operations. Operational design has always included two fundamental components: a mission, and a designated area of operations (battlespace geometry) in which to accomplish that mission. This battlespace geometry is important, especially to set the structure by which the joint force air component commander (JFACC) and the ground commander coordinate their operations. Numerous doctrinal publications explain the relationship between these two commanders.

Joint Publications 3-0 and 3-09 are two key documents. These publications state, "The land and naval force commanders are the supported commanders within the areas of operations designated by the joint force commander (JFC). Within their designated AOs, land and naval force commanders synchronize maneuver, fires, and interdiction. To facilitate this synchronization, such commanders have the authority to designate target priority, effects, and timing of fires within their AOs." These publications also address the JFACC's normal authority and responsibilities outside of ground areas of operation and joint special operations areas (JSOAs) as the supported commander for interdiction and strategic attack.

During the first months of operations in Afghanistan, there was minimal battlespace geometry, no designated JSOAs or ground AOs, and only the use of fire support coordinating measures (FSCMs) such as no-fire areas (NFAs), restricted-fire areas (RFAs), and killboxes. By definition, an FSCM is not a control measure; it is a coordinating measure for expediting or restricting fire support. Thus, one could argue that the CFACC was the supported



Continuous Blue-Force tracking of SOF in noncontiguous environments enhances situational awareness and reduces the chance for fratricide. SOF should continue to pursue automated tracking means while refining manual tracking and updating techniques into the common operational picture when beacons are not available.

commander throughout Afghanistan because no established ground area of operation or joint special operations area existed.

The CFACC was responsible for conducting interdiction and strategic attacks throughout Afghanistan and viewed SOF and the Northern Alliance (especially early in the war) as key sensors on the ground supporting CFACC fire. This perception and the use of SOF as an important human sensor has longstanding precedent. SOF and the Air Force have developed numerous tactics, techniques, and procedures to enhance these types of sensor-to-shooter operations. In Afghanistan, however, SOF had a different role. With its Northern Alliance partners, SOF was a maneuver force requiring joint fire support, just like any other friendly conventional ground force. Therefore, a key challenge was how fire support would assist SOF as a maneuver force without a designated area of operation.

In the fall of 2001, many saw Joint Special Operations Task Force (JSOTF)-North as a de facto ground commander conducting maneuver and re-

quiring fire support. In fact, several documents specified the special operations component as the main effort during some of the early phases. This designation as the main effort refers to priority, however, and not to the command relationship. The documents never directed when or where the JSOTF was to be the supported commander relative to other components of the joint force (specifically the CFACC). This had significant implications for the JSOTF's relationship with the CFACC. Also, despite being a de facto ground commander, the JSOTF commander might not have known the extent of his authority to "designate the target priority, effects, and timing of fires" within his operational area. Nothing in terms of orders or directives expressly granted that authority; JSOTF-North did not have a designated area of operations or a designated supported commander.

Fortunately, the commanders and their staff at the JSOTF and CFACC worked around the vague command relationships and lack of battlespace geometry to develop target lists and to strike targets. A system of killboxes and fires clearance procedures minimized the potential for fratricide while providing agility and responsiveness. Also, the CFACC worked with the JSOTF to develop logical prioritized target lists, and it allocated airpower to directly support SOF on the ground. However, this was done informally. No clear battlespace geometry for SOF was established. The only significant change was establishment of a CJOA, a CFLCC, and later a JTF.⁵ But these did not solve the requirement for SOF-controlled AOs and clear delineation of SOF as the supported commander to prioritize targets and designate required effects. This remains a key lesson learned. The regional combatant command and SOC need to focus on ensuring clarity in command relationships and battlespace geometry in future planning.

Air Apportionment and Fire Support Processes

Air apportionment in the first 10 days of OEF was focused on JOA-wide interdiction and strategic attacks against fixed targets. There was minimal initial apportionment of air assets to support SOF operations in either an interdiction or CAS role. This was probably due to several factors. First, the largely air-centric focus and robust air-control capabilities in CENTCOM had been developed for Operation Southern Watch in Iraq. In addition, SOF was not viewed as a maneuver force and lacked the battlespace geometry designating SOF as having an assigned JSOA. Last, there was doubt concerning SOF's ability to quickly take a decisive role in the ground fight with its Northern Alliance partners. Consequently, most of the air sorties being flown were for JOA-wide interdiction or strategic attack.

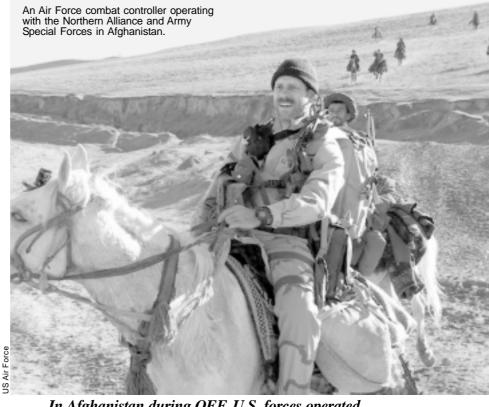
The CFACC controlled these operations in accordance with CENTCOM targeting priorities and stated rules of engagement (ROE).

The strategic urgency of inserting SOF into northern Afghanistan, coupled with the ongoing air campaign and lack of a robust fire support (targeting) organization in the JSOTF headquarters and within the special operations liaison element (SOLE) at the CFACC, contributed to the small amount of sortie allocation to CAS or SOF-nominated interdiction in those early days. The SOC and JSOTF did not nominate many interdiction targets or receive a significant CAS allocation for distribution subsequent to their initial infiltrations.

There were good reasons for the small numbers of interdiction targets. Positive identification ROE and limited early-on interdiction of moving targets caused SOF air crews to plan routes around known enemy threats. In addition, the relatively new joint fires element (JFE) at the JSOTF was still learning and defining its role within the theater targeting and fires process.⁶ Also,

the air support organization at the JSOTF was not initially robust enough to gain and distribute allocated CAS, clear fires, and to coordinate CAS. At the CFACC, the SOLE was focused on deconflicting special operations air sorties with conventional air missions and deconflicting interdiction and attack sorties near ground SOF. SOLE was not focused on targeting. The SOF prioritized its efforts on deploying forces and planning and executing a major unconventional warfare campaign within the timeline constraints instead of concentrating on detailed theater-level coordination requirements for fires and targeting. Thus, with limited special operationsnominated interdiction or preplanned CAS, the CFACC initially provided fire support to SOF teams collocated with the Northern Alliance on an immediate CAS basis; that is, sorties were diverted from other missions.⁷

The operation at Masar-e-Sharif is an example of the difficulties of integrating fire in a noncontiguous environment. Minimal preplanned CAS and interdiction were developed for this attack. The JSOTF could not predict locations of opposition groups or mobile enemy forces. The nature of Afghan tribal warfare (with capitulating forces rapidly



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changing sides and joining their enemies) dictated against SOF overly planning for interdiction. There was no defined AO or JSOA within which the JSOTF could doctrinally designate target priorities and effects.⁸ Therefore, JSOTF relied on the use of immediate CAS to meet fire support requirements.

The JSOTF could have taken more advantage of the targeting process to request interdiction support and preplanned CAS, but SOF was spoiled by fairly responsive air support. At this point, SOF was generating most of the targets, and there were abundant air assets not tasked with other requirements such as counter air. SOF needed only to identify targets, and the CFACC provided fire support. CFACC assets also were aggressive and responsive in fulfilling emergency requests where CAS was requested to support SOF teams in unexpected contact with the enemy and in danger of being overrun.

As the war progressed, the CFACC and SOF quickly developed the GDI concept in addition to normal CAS. The CFACC supported SOF requirements for interdiction of enemy forces that SOF could see and for which they provided targeting data but with whom they were not yet in direct contact.

In this concept, the CFACC generated interdiction and CAS sorties for Afghanistan without designating specific targets. The aircraft flew to the area and received targets as ground teams found and reported enemy forces. Ground elements directed a great number of strike platforms, including many nontraditional platforms such as B-52s. The JSOTF and the CFACC used killbox techniques to reduce possibilities of fratricide with this GDI. The JSOTF also established a more robust air support operations center (ASOC)-like capability similar to that of an Army corps ASOC. This ASOC-like organization coordinated with the CFACC, C2 aircraft, and strike platforms to facilitate joint fires. On-call strike platforms were handed off by the ASOC or airborne C2 platform, made direct radio contact with the ground team, and successfully struck their targets as designated.

GDI was beneficial and successful for two principal reasons. Most targets at this point were moving forces, not stationary facilities; and positive identification (PID) was often required in accordance with CENTCOM rules of engagement. However, several minor areas have been identified as requiring additional work for future operations.

First is battlespace geometry, the designation of areas of operation or JSOAs. This designation, in addition to standard FSCMs, assists in the targeting cycle process with its related apportionment, target nomination aspects, and fires clearance and synchronization authorities. Second is identifying supported commanders to ensure precise prioritization of objectives and targets. Lacking this delineation, a more simplistic and possibly incorrect division of authority might arise. Interdiction might be viewed as in support of the JFACC, with only CAS designated to assist ground commanders. Third is continued emphasis on Blue-Force tracking through use of beacon devices such as MTX and Grenadier Brat tracking devices to ensure good situational awareness and to minimize potential for fratricide. Fourth is definitive

ROE that support target engagement in situations where PID is infeasible. This ROE dilemma is a recurring challenge with no easy solution. There remains a balance between the rapid declaration of a target as hostile to enable rapid attack and the risk of inadvertent strikes of nonhostile targets. Many of the

challenges have been noted. However, in summary they are—

- Lack of clearly designated supported/supporting command relationships.
- Lack of delineation of areas of operation and joint special operations areas.
- Nonapportionment and allocation of air assets in support of SOF in the early portion of the fight. including a lack of clear guidance from CENTCOM on fires prioritization.
- Lack of personnel at the special operations component and at the JSOTF level fully trained in joint fires procedures and capable of influencing the joint targeting process.
- Lack of emphasis at the SOLE on targeting and fire support issues.
- Lack of a formal ASOC-like organization at the SOF component or JSOTF level to facilitate all aerial fire support.
- © CAS control procedures and methods (not discussed in this article).

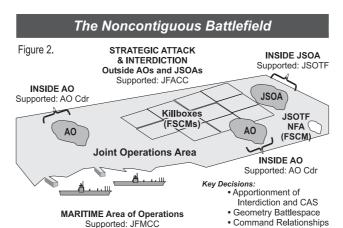
The Way Ahead

This new paradigm of fires and maneuver in noncontiguous environments is being refined. The sections below summarize some of the steps SOF and the Air Force are taking to enhance fires and maneuver in the joint fight. They advocate increased use of gridded areas of operation and killboxes, increased SOF leverage of joint targeting processes, more robust and trained fire support organizations for SOF, and continued exploitation of Blue-Force tracking technologies.

Increased use of gridded areas of operation and killboxes. No longer do areas of operation have to be linear or large. A gridded arrangement of small areas of operation that can be individually activated and deactivated is feasible and can support rapid decisive operations with quickly moving forces. Use of killboxes overlaid or outside of these defined AOs is an excellent FSCM that facilitates more responsive fires and fire support. NFAs and RFAs may

still be necessary to protect forces that might be supporting the CFACC's interdiction efforts as sensors. Battlespace geometry and FSCMs are enhanced through the more reliable Blue-Force tracking means available today.

Increased SOF leverage of joint targeting processes. SOF will continue to





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operate in noncontiguous environments in supported and supporting commander roles. SOF needs to continue its increased participation in the joint targeting process through a robust, fully-manned, and trained JFE in the headquarters.

Also, the SOLE must better support special operations requirements for fires in the targeting and ATO development processes. The SOLE needs dedicated and trained maritime and ground expertise, similar to the Army's Battlefield Coordination Detachment, in order to represent the SOC and JSOTF commanders during apportionment, target nomination, and execution phases. Moreover, the SOLE must be directly linked to the future operations and future plans cells at the SOC and JSOTF headquarters to ensure that fire support requirements for special operations are addressed in the theater-level planning cycle. The SOLE must also continue its activities in deconfliction and fratricide prevention.

The SOF community needs to enhance its knowledge and integration within the joint targeting process. The special operations community needs staff officers and noncommissioned officers (NCOs) who are operational-level fire support experts, know the targeting process, and can plan for and direct fires to support JSOTFs. In addition, special operations officers and NCOs should attend joint aerospace C2

courses that will allow them to effectively operate as part of the JFE within a SOF operational head-quarters. Greater coordination on fires also is required between the JSOTF and the JFACC, and between the JSOTF and the JFLCC. The JFE and the SOLE need to learn how to influence apportionment decisions made by the joint force commander. The JFE and the special operations command and control element need to learn how to gain the proper support from the JFLCC when operating in the JFLCC AO. Failing to learn these processes will deprive the force of valuable fire support assets due to being excluded when apportionment and allocation decisions are made.

More robust and trained fire support organizations. Much as the JFE and SOLE assist in target planning and coordination, an enhanced air support organization in the SOF headquarters (much like the ASOC in the corps headquarters) facilitates actual execution of fire support for special operations. The term "joint air control element" (JACE) was coined by the 18th Air Support Operations Group commander for this type of organization. This JACE would be a cell within the JSOTF JFE and is the key to fully integrating air power with special operations.

Continued exploitation of Blue-Force tracking technology. Continuous Blue-Force tracking of SOF in noncontiguous environments enhances

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situational awareness and reduces the chance for fratricide. SOF should continue to pursue automated tracking means while refining manual tracking and updating techniques into the common operational picture (COP) when beacons are not available. It also is recommended that SOF provide full, rather than discrete or filtered, feeds to the COP to ensure common situational awareness. The likelihood of fratricide casualties due to a lack of situational awareness is much greater than from a potential compromise of SOF locations over these secure COP mechanisms.

Lesson's Learned

The SOF and conventional community can build on these insights, train staffs and commanders, and develop even better TTPs through more involvement in CONUS-based, high-fidelity, realistic joint training and exercises. Warfighting readiness could be improved through many simulation and field exercises.¹⁰ Forces should be trained in the way they are going to fight. They should not be expected to do something on the battlefield that has not been practiced in training or exercises.

SOF and the JFACC worked together in OEF to overcome some initial challenges and learned from the experience. SOF recognized the value of the targeting process, and JFACC recognized the value of SOF as a maneuver force and as an accurate and discriminating sensor on the ground. SOF definitely learned the value of air apportionment and allocation to gain interdiction support and CAS. Both learned the necessity of developing clear battlespace geometry and designating supported/supporting command relationships at the start of operations. SOF learned the necessity for SOLE to be an active player in targeting and fires, in addition to its traditional airspace coordination and deconfliction roles. SOF also learned the necessity of having a knowledgeable JFE in the headquarters to better participate in the targeting process. JFACC discovered the necessity for an ASOClike organization attached to SOF headquarters to better control allocated air assets in support of SOF operations. The insights gained from OEF are valuable to joint air and SOF organizations as they develop better organizations, tactics, techniques, and procedures. **MR**

NOTES

- 1. ARCENT, designated as the combined force land component commander (CFLCC) in November 2002, was assigned responsibility for land operations in the coalition joint operations area Afghanistan (CJOA AFG) to coordinate and synchronize land operations. As a land component commander, CFLCC did not assume the full responsibilities of a joint force commander for the CJOA. This caused confusion on targeting and fires. This same lack of definition also frustrated the 10th Mountain Division as it later took on certain CFLCC responsibilities (authors' perception). However, all said, we do not desire to get into this degree of detail on CFLCC operations as it will dilute the focus of the article. the focus of the article
- Ibid.
 Joint Publication 3-09, Doctrine for Joint Fire Support (Washington DC: Government Printing Office [GPO], 12 May 1998), chap. 1, para. 3b.
 This delineation of JFACC authorities for interdiction "outside of area of operations".
- tions (AOS) and joint special operation areas (JSOAs)" is key in later discussion of the 18th Air Support Operations Group (ASOG)-coined term "ground directed interdiction" (GDI). GDI may occur in or out of designated AOS and JSOAs. The location of the interdiction will determine who is the supported commander and who is responsible for fires clearance
- 5. The coalition joint operations area (CJOA)/CFLCC establishment did not solve the issues. By definition, a CJOA includes air and surface space. The CFLCC did not control the airspace or have authority over the Combined Force Air Component Commander (CFACC). The tactical control (TACON) subordination of the JSOTF-North (a joint force) to the CFLCC (a ground force) was also confusing. Again, it was the commander, who worked together to accomplish the mission.
 6. The 18th ASOG deployed a squadron to the JSOTF-North location. The squadron commander and his personnel were able to fulfill many of the targeting responsibilities, in addition to normal tactical air control post functions.
 7. The 18th ASOG bersonnel did a great tol in the targeting area. Our comments
- The 18th ASOG personnel did a great job in the targeting area. Our comments are not meant to minimize their exceptional work. 8. The JSOTF did, however, nominate targets for this operation. Due to the mission
- focus of all concerned, the operation succeeded.

 9. "Key Command Banned Nearly All Attacks On Afghan Roads, Bridges," Inside
- The Pentagon, *National Geographic* (9 January 2003).

 10. The air component commander and special operations forces are already doing this with great success!

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